



Planetary Health: A Grassroot Experience of Indonesian Sea Nomads in Solid Waste Management in Bajau Mola Raya, Wakatobi Regency, Southeast Sulawesi

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Abstract: Indigenous peoples as one of the actors for preserving the environment with their valuable cultural practices also become spotlight to be incorporated to pursue the planetary health concept. This research contributes to give evidence in the failure system of implementing planetary health concept at the grassroots level for human aptitude in the case of the Indonesian Sea Nomads community namely Bajau people in Mola Raya, Wakatobi Regency. The qualitative setting was implied in this research using ethnography. Preferably, Bajau people through their knowledge should be recognized as a practice model toward adapting the concept of planetary health including solid waste management practice. It was found a failure action and stimulus programs from multi-stakeholders who have been working with Bajau people to date, which also been influenced by the political situation. Bajau people realize their failures of implementing local knowledge but they were rolled into the complex system. Bajau people are labeled to be the actor of environmental damages for marine living resources and as low intention people to ecosystem health. As impacts, Bajau people has a high risk of public health issues and social blaming regarding their destructive practices.

1 INTRODUCTION

Interdisciplinary issues in the current public health debate are becoming the spotlight since there has been a shared commitment to sustainable development goals (SDGs) (Clifford and Zaman, 2016). Practically, public health quality improvement programs should imply a situated approach according to the community needs. This specific approach undoubtedly must be based on experience and local wisdom backward to the root of the problem of public health itself. Local and cultural-based approaches are currently considered as the most suitable alternative to today's challenges (Dickerson et al., 2020). In advance, the environmental issue is one that affects the interaction between humans and ecosystems as in the concept of the planetary health approach (Lerner and Berg, 2017, Horwitz and Parkes, 2019).

The Lancet Planetary Health Commission reported calls for the “training of indigenous and other local community members” in order to “help to protect health and the biodiversity” (Redvers, 2018). This concept explains how indigenous peoples play an important role in protecting the environment through traditional ecological knowledge (Berkes, 1993) and their own health system (Finn et al., 2017). Furthermore, this planetary health concept has developed into an approach which defined as the safe “planetary playing field”, or the “safe operating space for humanity” to stay within if we want to make sure to avoid environmental changes in the major human-induced on a global scale (Redvers et al., 2020). Modern and complex ideas regarding social and environmental issues that apply to the planetary health have been considered as hereditary knowledge by indigenous communities since time immemorial. The success of the future generation lies in caring and

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upholding the planet in good health (Behera et al., 2020), as a main discussion in this research.

The relationship between planetary health and indigenous peoples as a general concept, certainly has its own challenges (Capon, 2020), especially in the implementation and influence of the alignments of policymakers and public awareness itself. These kinds of perceptions often become obstacles and gaps in how global commitment is adopted into local terms. This nature disconnect grows rapidly, there is a consideration to be transformative changes inside and outside public health and healthcare spaces (Redvers et al., 2020). The basic concept is actually close to indigenous peoples, both those who live on land or who live on the coast and marine areas, such as the Bajau Mola community in Wakatobi Regency, Southeast Sulawesi Province, Indonesia.

Due to the planetary concept is very broad, this research overlooked the locus of solid waste management as the specific analysis guidance. The socio-economic information of the Bajau Mola community and Wakatobi Regency also becomes a considerable background in order to present the research gap, especially those who have not succeeded in solving this environmental problem. The behaviour of the Bajau people themselves as a community whose ancestors lived in the sea has not been educated enough to dispose of solid waste in its place. This has become an issue with the Wakatobi Regency government lately. The Bajau Mola as the most densely populated village in Wakatobi with a total population of 7619 people (Statistic Indonesia, 2021) contributes to waste in the waters of Wakatobi Regency. This issue is exacerbated by the conflict of interest in the area between the Bajau, Wakatobi National Park (WNP) authorities and the coastal community development program in Wakatobi Regency. Bajau identity as immigrants has low collective rights and a local capitalized system (Wianti et al., 2012). From a socio-economic point of view, the Bajau people are also vulnerable to becoming a modern society that will lose their cultural identity (Marlina et al., 2021). The way of life Bajau people depends on marine resources for their food, shelter, livelihoods, and cultural needs.

If it is returned to global issues, this research implicitly contributes to outlining the facts on the ground regarding the concepts of planetary health, Bajau culture, and solid waste management in the Wakatobi Regency. In more ambitious impacts, the global environmental change and climate crisis, and also the existence of pandemics are all consequences of not following the natural laws that are encapsulated by the interrelated global nature through planetary

health (Redvers et al., 2020). The natural laws as part of traditional ecological knowledge have been growing into a valuable point in the planetary health system for instance in solid waste management. Those natural laws that grow in Bajau people should be a practiced model that must be strengthened in solid waste management in Wakatobi Regency as stated in research hypotheses. There are two points of main focus in this research, the first is to see the experience of Bajau Mola in implementing planetary health in daily life, and the second is to study the factors that influence the successfulness of planetary health, particularly in the case of solid waste management.

2 METHOD

This research implied the qualitative setting using ethnography from October 2020 to May 2021. The ethnography was used to see the daily activities of Bajau people in Mola in interpreting the solid waste management and the use of their local knowledge. Then, the observation data would be fit into planetary health as conceptualized by The Lancet (Horton and Lo, 2015, Myers, 2017, Horton et al., 2014). The informants consisted of native Bajau people in Mola and related stakeholders from local government offices. The data analysis implied the narrative approaches where the observation notes was analyzed in every single talks. In more appropriate steps, this research followed Riessman (1993) which grouping the ethnography data analysis into; attending, telling, transcribing, analysing, reading, and validating.

This ethnographic study was conducted by live-in with the Bajau Mola community. The stages consisted of basic data investigations, then continued with the process of finding cases (solid waste management), collecting facts, and extracting raw data. Then, it was followed by reading the group situation involved and its challenges (planetary health), interpretation, and data analysis. Furthermore, all data were validated with the Bajau Mola to deliberate the findings. The validation and data analysis process were frequent repeated to reduce data bias and to get the most valid ethnographic data.

2.1 Study Area

The Wakatobi Regency was nominated as a marine national park located in Coral Triangle Initiatives that becoming a home for the highest marine biodiversity in Indonesia (White et al., 2014). Another interesting

point is that the marine national park covers the whole areas of the Wakatobi Regency as marine protected area or known as WNP which legally acknowledge under the Ministry of Environment and Forestry. With a resident community of around 100,000 people, the WNP is Indonesia's third largest and most populated marine national park with 5,000 hectare coral reefs, large offshore atoll, seagrass meadows and mangrove forests (Clifton and Unsworth, 2009). Nowadays, the WNP become a priority tourism attraction of Indonesia in 2019 and it will be intended as "new Bali" in 2021 (Rathgeber, 2018).

Wakatobi Regency is a group of islands located in Southeast Sulawesi, Indonesia. The capital city name is Wangi-Wangi. Officially, this regency was established by Law No. 29/2003. The name "Wakatobi" is an acronym that coming from the first two letters of four largest islands name in the Tukang Besi archipelago: Wangi-wangi (WA), Kaledupa (KA), Tomia (TO), and Binangko (BI). Wakatobi Regency population is 95,737 inhabitants spreading in four big islands and 43 small islands. This regency lies south of the equator, stretching latitudinally from 5°12' to 6°25' S and 123°20' to 124°39' E. The land area of the Regency extends approximately 823 square kilometers. The water area is estimated at around 17,554 square kilometers (Statistics Indonesia, 2019). Approximately eight percent of ethnic groups in Wakatobi Regency is Bajau communities (Elliott et al., 2001).

The health-related situation is shown an improvement in terms of the number of reported health problems, however, both of infectious and chronic diseases still become the major diseases in Wakatobi Regency. Prevalence of people having health problems in Wakatobi Regency decreased from 12.2% in 2018 to 9.4% in 2020 (Badan Pusat Statistik Kabupaten Wakatobi, 2021). The health problems represented in this data including acute diseases, chronic diseases, and traffic road accident. The morbidity rate of Wakatobi Regency in 2020 is 9.39%, decreased 0.89% compared to 2019 (Statistics Indonesia, 2021).

Wakatobi Regency is still facing burden both in infectious and chronic diseases, such as hypertension, upper respiratory tract infection, diabetes mellitus, and diarrhoea which ranging from 1,000 to 4,000 number of cases out of 100,000 residents (Badan Pusat Statistik Kabupaten Wakatobi, 2021). Such infectious diseases are closely related with the hygiene and sanitation which is the main concern in the Planetary Health concept focusing on environmental issues, such as clean water, and an adequate sanitation system. Data from Wakatobi

Regency Health Office (2013) showed that the percentage of healthy sanitation household was 61.18% or equal with 15,111 number in healthy household sanitation category from the total 24,699 surveyed. According to the same survey, the percentage of the population with access to clean drinking water is 73.26% and the percentage of the population with access to proper sanitation is 67.3%. This number still far from the target by SDGs goal to ensure the water availability and sanitation for all. Moreover, as of COVID-19 implications, basic handwashing with clean water and soap in every household is urgently needed.

2.2 Bajau in Wakatobi

The Bajau population has become so widely scattered in eastern Indonesia not merely because they have moved around the seas, but also because they have kept forming maritime creoles in their destinations by accommodating migrants as well as the native peoples of various origins (Nagatsu, 2017). Many scholars who have researched the Bajau communities found that Bajau people are very consumptive and good hospitality (Stacey et al., 2018, Suryanegara and Nahib, 2015, Jeon, 2019). The language of Bajau people is influenced by local dialects around their settlement.

The Bajau people are sea nomads currently scattered in Kalimantan, Sulawesi, the Nusa Tenggara Islands, Maluku Islands and Eastern Java. Southeast Sulawesi is the province with the highest number of Bajau populations (Nagatsu, 2017). Wakatobi Regency, located in Southeast Sulawesi Province, is the regency with the highest Bajau population. In Wakatobi Regency, there are five Bajau villages: Mola raya, Samplea, Mantigola, Lohoa, and Lamanggau. The ancestor of these five Bajau villages was once a descendant of the Bajau people who lived in Mantigola. In 1963, the *Darul Islam Tentara Islam Indonesia* (DI/TII) Movement or Islamic Armed Force of Indonesia caused social conflict against the Bajau people in Wakatobi. In that year the Bajau people scattered to save themselves to various points which are now new settlements.

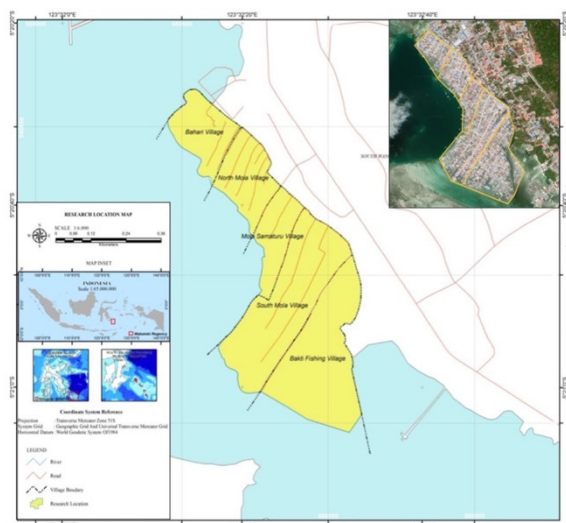


Figure 1: Map of Bajau Mola Raya villages in Wakatobi Regency (adopted map from (Marlina et al., 2021)).

Nowadays, the livelihood of the Bajau people in Wakatobi Regency is not only as a catch fisherman but also has a role in the fishery business, the service sector, and sea transportation. The Bajau people are also currently going to school and having the equal socio-economic competitiveness with land communities. The current consumption and economic patterns of the Bajau people have followed the land-oriented communities. The Bajau community's exposure to information technology has a positive impact on fishing equipment innovation and business opportunities. However, the negative impact also causes the loss of traditional identity as a marine foraging community that has good adaptability and resilience to social and environmental changes.

Bajau Mola is the most populous group among other Bajau villages in Wakatobi Regency. Administratively, Bajau Mola village consists of five villages as shown in Table 1. This village is the Bajau village closest to the district government center called Wangi-Wangi and is center of fisheries in Wakatobi Regency. Due to the densely populated and slum dwellings above the sea, their concern for cleanliness is very low. The practice of dumping garbage into the sea and low attention to environmental hygiene is nowadays a habit of Bajau Mola.

According to the health instructor at the South Wangi-Wangi subdistrict primary healthcare which responsible for Bajau Mola villages, the unhealthy living environment in Mola villages causes several types of skin diseases such as tinea versicolor, scabies, scald head and other skin allergies. In addition, an unclean environment causes a high incidence of tetanus in Bajau Mola. Meanwhile,

diabetes and hypertension are two diseases that often become complaints of Bajau people in Mola.

Table 1: Population of Bajau people in Mola Raya

Village	Population	Householders
North Mola	995	285
South Mola	1982	546
Bahari	1220	331
Mola Samaturu	891	234
Bakti Fishing	2531	621
Total	7619	2017

Data source: Statistics Indonesia (2021)

According to Khomsan and Syarif (2018), 63.2% of Bajau people in Wakatobi Regency have more than four household members. Most of the houses in Bajau Mola are permanent by reclaiming the sea with coral rocks, only a few houses in the *Bakti Fishing Village* still live-in wooden houses that are staked above the sea and do not have good sanitation. For the purposes of bathing, washing and toileting they use sea water. As for the need for clean water (fresh water) used for drinking and cooking, they get it by buying. Health issues in Mola Raya are the nutritional status of toddlers who experience stunting 48.8%, underweight 32.6% and wasting 9.3% (Khomsan and Syarif, 2018).

2.3 Solid Waste Management

The problem of the relationship between waste, health, and indigenous peoples is currently a social phenomenon that needs attention from all parties since waste is an essential thing generated by every people. Wakatobi Regency which has a population of 111,402 people with a population growth rate of 1.76% (Statistics Indonesia, 2021) is facing problems with solid waste management. This problem arises with the amount of garbage dumped into the sea is getting higher every year. The available policies that are not precise in overcoming this problem have also become a waste problem in Wakatobi which is still not resolved yet.

In commemoration of Waste Care Day 2018, the Wakatobi Regency Government launched a Complete & Sustainable Waste Access Completion Policy which includes five policy points, namely (1) creating solid waste entrepreneurs (collection & reduction of waste), (2) optimizing waste management, (3) optimization processing of final disposal sites, (4) village-level cleanliness and waste reduction competition (*Replication Desa Mandiri*), and (4) the annual agenda of the 'Waste Harvest Festival'. Furthermore, in 2019, the Wakatobi

Regency government has ambitions in solid waste management to achieve the target of 20% reduction and 80% waste management. Currently, the waste access rate in Wakatobi Regency is at 57% for handling and 3% for reduction. As a coastal area that is often traversed by trans-island shipping vessels, Wakatobi Regency is not only dealing with garbage from residents. Marine debris, both from fishermen and passing passenger ships, is also a complicated problem faced.

The government of Wakatobi Regency, through the Department of Environment (DLH) noted that around 45 tons of waste can be collected per day from four islands. On the island of Wangi-wangi, the volume of waste per day reaches 30 tons. The collected waste, especially plastic waste, which is mostly household waste from the local community, as well as garbage shipments from outside the island of Wakatobi. Of the 45 tons of waste, as much as 30 to 40% is plastic waste, and the rest is non-organic waste such as fruit peels, corn husks, wood and etc.

In an effort to control waste in Wakatobi Regency, since December 2018, a circular letter from the Regent of Wakatobi has been issued regarding the prohibition of using plastic containers or wraps in all government activities. Practically, it is not well managed because of the lack of personal commitment and habits. For the time being, there is only on the coast of Wangi-wangi island that cleaning workers from the DLH has been assigned to keep the entire beach clean from garbage sent from the sea. The rest area of Wakatobi assigns their villager to be cleaning workers which paid by village fund. In one village there are four to five cleaning workers. Nevertheless, it seems not quite effective because the cleaning workers are only oriented to salary over the sense of belonging to keep environmental clean.

In the main city like Wangi-wangi, the cleaning workers are DLH' officers, their job is to maintain the cleanliness of the entire coastal area, but garbage in the sea areas has not been significantly cleaned. The garbage that has been transported from the coast will be taken to final disposal sites (TPA). In the appropriate plan, the organic waste will be processed into compost, and certain types of plastic waste will be processed into crafts. Moreover, this practice is just a concept but no longer happening. In addition, the local government also seeks to raise awareness about environmental care from an early age, through the Department of Education in Wakatobi Regency, using subjects for local content specifically for the environment.

3 RESULTS AND DISCUSSIONS

The existence of local knowledge in the planetary concept has been implemented by the Bajau people in their livelihood. This circumstance forces the Bajau people to adapt to changes in environmental threats and public health problems, particularly related to waste management. This study found that several considerations related to the implementation of planetary health. In addition, it was found that the failure of the action and stimulus programs from various parties that had been working with the Bajau people in Mola. Government policies and community awareness regarding solid waste management which affects environmental and health problems are still not synergized properly in Wakatobi Regency.

3.1 Local Knowledge and Social Determinant of Health

The life habits of the Bajau people as marine colonizers have become a cultural identity known to the public today. Their local knowledge that has evolved into a land community has made the Bajau people in Mola dubbed as people who are confused by the current advances in information technology. This evolution is a human-environment interaction that in an undebatable way affects all aspects of the life of the Bajau people. The evolution of the local knowledge can be seen as part of the general self-organizing process of all-natural systems (Gadgil et al., 1993). Local knowledge that used to be relied on to adapt has now turned into a practice that destroys environmental stability, especially in solid waste management.

The Bajau people in Mola think that solid waste management is not a priority issue that they have to deal with at this time. They think that the garbage that they deliberately throw into the sea will disappear by itself and be carried by the ocean somewhere. Nevertheless, they define the cleanliness of environment when they do not see garbage in and around the houses. They do not consider the overall cleanliness of the sea from garbage and the issue of marine degradation due to debris as long as they still can catch fish in the atoll and the other pelagic areas.

The behaviour of throwing garbage into the sea has existed since their ancestor's period. Even though they have known about the sea spirits who prohibit them to litter. In the past, the waste they disposed mostly are organic waste but now the types of waste have varied to plastic, Styrofoam, household chemicals, and so on. The local wisdom they have about the sea as their farm and home is not in line with

their current practice and behaviour. Indeed, the readiness to become an islander, low participation in education, and forced adaptation into modern living are social issues that need to be addressed.

The theory of Dahlgren and Whitehead (1991) explains that health status or diseases experienced by individuals is affected by factors located in several layers of the environment, and most of these health determinants are alterable factors. This theory is very supportive to see the phenomena and relationships between health issues, the environment, and the practice of waste disposal which could be improved slowly by providing a consistent understanding to the Bajau Mola people. Health awareness of the Bajau people is still low by looking at the ethnocentric point of view. The Bajau people have term “shaman” but it is more related to magic spirits. This phenomenon disconnected in viewing the issue of local knowledge, planetary health, ecosystem, and community health that have not been well integrated. Indeed, the social issues in health have not been included in the waste reduction points in Wakatobi Regency as shown in Bajau Mola.

Bajau people realize their failures on implementing local knowledge, however, they were rolled into a complex system. The erosion of the cultural practices of the Bajau people is due to the adoption of a modern lifestyle and the unrecognition of Bajau culture and identity collectively by the Wakatobi Regency government. The destruction is also exacerbated by the lack in involvement for the design of community-based environmental education programs that combine local concepts and reinforcement with modern concepts especially in managing waste and its related public health issues.

3.2 Community Participation

Community participation is important in recognizing the developing social and environmental phenomena. Community participation entails the problem-solving caused by various situations. The level of participation can be revealed from the way the community overtakes the risks and involvement in responding to the decisions that have been acted. In the case of the Bajau Mola, community participation can be used as the spearhead in solving environmental and community health problems. The lack of adaptability and participation in planetary health cases has made the Bajau Mola tend not to care about the environment. The invisible social engagement in the case of the Bajau Mola people has made environmental and health problems even more complicated.

In Bajau Mola, the actors of change, whether young or old, have not been seen to date. Bajau Mola human resources who are aware of the importance of environmental and health issues and can educate the public are still lacking. There are six phenomena found in this research on social engagement: (1) the school participation rate is still low; (2) there is no customary organization that regulates the social environment; (3) awareness of the damage to the marine environment due to garbage; (4) the role of the young generation is still minimal due to the high number of early marriages; (5) social environmental programs that enter Bajau Mola are not sustainable; (6) social discrimination regarding Bajau who are considered as immigrants.

In another hand, there is a local movement from multi-stakeholders in Wakatobi Regency which named Community of Seeing Nature (Kamelia). It is a consortium of various elements of local government organizations, NGOs, academics, and environmentalists. The community's first interest was focused on the issue of plastic waste management. One of their working areas is in Mola Raya villages. The Kamelia embraced a local organization, the Bajau Mola Tourism Institute (Lepa Mola) to educate the community by carrying out waste clean-up actions, waste recycling activities, environmental education for primary, junior high school students, and youth organizations. The Kamelia states that the unavailability of trash cans in each house and the absence of paid cleaning workers from local government are the main issues in Bajau Mola. Therefore, Bajau Mola find it difficult to dispose their own waste to the garbage dump in the city main road (land areas).

Regarding to the implementation of planetary health, the community participation and social engagement is really matter when working with indigenous people and local communities (IPLCs) issues. Ultimately, the individual, community, and the planet are rooted in traditional systems and collective knowledge that engages the need for respect and relationships to the nature-culture system.

3.3 Local Interests in Waste Management System

Single-use plastics and poor waste management are relatively new phenomena in remote island communities in Indonesia (Phelan et al., 2020). Wakatobi Regency, as an archipelagic area inhabited by various ethnicities, one of which is the Bajau, is also facing a complicated waste problem. Of the four main islands belonging to Wakatobi Regency, only

one of them in South Wangi-wangi subdistrict have adequate TPA. The practice of managing waste is by burning or throwing it into landfills or sea carelessly. The case is even worse in the Bajau village, which incidentally lives on the coast and the sea separately. The practice of disposing of waste is carried out directly into the sea. As one of the discussion points, the government's policy, and seriousness in dealing seriously with the waste problem in Wakatobi Regency are factors that support the success of the planetary health system at the grassroots level.

Associated with the practice of littering, the Bajau Mola community is one of the community groups that contribute to environmental pollution by throwing solid waste directly into the sea (Phelan et al., 2020). This problem will of course intersect with the issue of environmental health and the community itself. The Bajau people as a coastal community with a complex geography, coupled with a weak waste collection service system, local interest, and low plastic literacy make waste management a difficult problem. This also makes the Bajau Mola people themselves will bear the impact of the marine plastic crisis in a certain period.

Furthermore, the political situation in case of Wakatobi Regency has influenced the mainstreaming of the introduction of local wisdom and the mainstreaming of policy directions. Environmental issues are still associated with local elections and legislative members which are translated in the form of and assistance to villages that have won these political candidates. In the context of acknowledging local wisdom and the identity of the Bajau community, Wakatobi Regency has not had it that far. The assumption and the stigma that is spread about the Bajau people are labeled to be the actor of environmental damages for marine living resources and as low intention people to ecosystem health. As impacts, Bajau people has a high risk of public health issues and social blaming regarding their destructive practices. This is also what makes the Bajau people lose confidence in the government system, both from the region and the vertical agency that oversees the WNP.

The local government's interest in integrated health issues can be the main point in solving environmental problems in Bajau Mola. On the other hand, the Bajau Mola community also needs cooperation in unifying the existing vision of local wisdom regarding coastal and marine management, solid waste management, and environmental health systems into an integrated concept that should be reconstructed by the Wakatobi district government.

3.4 Human and Ecosystem Health

Philosophically, the Bajau people recognize the recommendation to protect the sea because the sea is the abode of ancestral spirits. If it is damaged, the Bajau people will get "Pamali" or "Taboo" in the form of a customary prohibition to take certain actions that are detrimental to themselves and the community. Bajau people are prohibited from bathing with soap, throwing away the rest of the sea drink, using perfume, throwing chilies in the sea, singing and making noise in their sacred areas. This concept is also believed to be a customary-based conservation practice in the Bajau version, including throwing garbage into the sea. The fact is that these habits and beliefs have disappeared with the socio-economic lifestyle that has been crushed by globalization.

The concept of the relationship between humans and the environment is the basis of planetary health to help solve integrated health problems and their solutions start from the smallest locus in society. Associated with the issue of solid waste management in Bajau Mola, this can be seen clearly, where people's habits of throwing garbage into the sea will damage the environment and will cause disease and disrupt public health. In terms of human behavior in the form of loss of community identity, social recognition, level of education and external cultural influences, the behavior of the community in Bajau Mola to dispose of garbage also increases with time. In terms of policies and support from local organizations, it also shows the low level of supervision and poor management systems in solving waste and environmental health problems in Wakatobi Regency.

The dynamics of interaction between humans and the environment in solid waste management in Wakatobi Regency can be seen from how the Bajau people adapt, modify, and depend on the environment, especially the coast and other marine resources. The generation of Bajau people who have lost their customary norms and guidelines in preserving the environment has made this interaction gap even bigger. The embodiment of local knowledge into the living system is currently fading in Bajau Mola. Awareness of the importance of the environment for human survival has begun to decrease and is predicted to disappear in the next two or three generations.

3.5 Implementation of Planetary Health

The relationship between humans and nature and their implications for planetary health through the lens of

traditional ecological knowledge systems is an integral part of realizing healthy communities and environment. The traditional ecological knowledge system itself is based on a proper understanding of the Natural Law or First Law, the meaning of which is uniquely rooted in each region globally (Redvers et al., 2020). Meanwhile, the collapse of the ecological system is the biggest problem for human health and survival globally, as felt during the Covid-19 pandemic.

This research argues that the concept of planetary health is a concept that can reach the smallest social unit in society if it is implemented with the right approach with commitment from the government and other organizations. In the case of implementing planetary health in Wakatobi Regency with a solid waste management case study, the commitment of multi stakeholders is low in solving waste, public health and environmental problems. This implementation did not seem well-work, due to the loss of local wisdom from the Bajau Mola people who were crushed by the time. Health, safe environment, cleanliness, and ecosystem sustainability are placed at the bottom after economic issues by the Bajau Mola people. If viewed inclusively, there is a gap between strengthening local wisdom and regional development goals that are mainstreaming the Bajau people as fishermen who bear a negative stigma.

As indigenous peoples who engaged with social environment, rooted in cultural values, political ideologies, legal and economic systems, ethical principles, and beliefs, Bajau people are a vulnerable community regarding planetary health issues. There is a failure in addressing the interconnection between human and environmental systems. In current debates, there is always a need to move beyond science and technology and address these broader socio-cultural issues by engaging in economic, legal, and political work, complementing and supplementing 'head stuff' with 'heart, gut and spirit stuff', and working from the grassroots up (Hancock, 2019). At least there is consideration in the form of innovations that present the idea of planetary health to the Bajau people in reducing gaps in current public health policies that fail to consider key perspectives related to ecology. Furthermore, increasing cooperation between governments, non-governmental organizations, international organizations, academia, private sectors, and civil society in solving planetary health problems is mandatory (Paula, 2018).

4 CONCLUSIONS

Planetary health as a phenomenological approach in viewing the issue of human environment interaction is very suitable to be implemented in the smallest social community. In detail, this approach does not provide concrete steps because each community has its own uniqueness and challenges. In the case study of the Bajau Mola people in Wakatobi, the implementation of the planetary health system in the example of environmental hygiene and solid waste management seems inconsistent with the theory. External conditions and factors related to the unresolved policies and identity of the Bajau people make this theory fail in general. Local knowledge, social determinants of health, community participation, local interests in waste management system, human and ecosystem health, and implementation of planetary health itself is the consideration of a new integration model for Wakatobi Regency in implementing planetary health in the case of solid waste management. Furthermore, reconstructing the definition of human progress and situated problem, redesigning human-environment interaction probabilities, and revitalizing the prospects for the human health civilizations in the policy direction are the recommended consideration that proposing in this research.

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